



CIRF

**Converging Industries Research
Foundation**

Practical Solutions for Communications Policy

Options for the Universal Service Fund

Executive Summary

October 15, 1997

*Presentation at the November 1997 NARUC Meeting,
Boston, MA*

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Options for the Universal Service Fund

Executive Summary

Objective

This paper will model options for the federal universal service fund (USF) on a comparable basis that will allow the reader to examine the effect on customers and states.

Current Subsidies

The telephone industry and regulatory agencies have historically maintained affordable residential rates through programs that provide subsidies and through pricing policies. The goal of universal service has been accomplished without the customer being aware that the programs exist. Historically, the support mechanisms that have kept many residential rates below their cost have been like the shell game. You know they are in there somewhere; identifying exactly where can be a guessing game.

Focus of the Model

This paper only focuses on universal service support for high-cost, non-rural companies and omits other current subsidies as well as new support mechanisms required by the *Telecommunications Act of 1996* (such as funding telecommunications for schools, libraries, and rural health care). The following are some 1995 subsidies and some new subsidies:

1995 Subsidies: Covered by Paper	Dollars (in Millions)
Universal Service Fund (USF) for Non-Rural Companies (26%)*	\$202

Some 1995 Subsidies: Not Covered by Paper	
Lifeline/Link-up	\$156
Weighted Dial Equipment Minutes (DEM)	300
Long-Term Support (LTS)	382
Universal Service Fund (USF) for Rural Companies (74%)	575
Schools and Libraries	2,250
Rural Health Care Providers	400
Subtotal	\$4,063

Total	\$4,265
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*Rural companies are those with a total of 100,000 access lines or less. Non-rural companies are those with a total of more than 100,000 access lines.

Some Questions to Ask About Options for the New Fund

There are certain questions that should be answered to determine if the new universal service fund meets the requirements of the *Act of 1996*, the needs of a competitive industry, and accomplishes the goal of supporting truly high-cost areas. Some of these questions are:

- Does the fund accomplish the goal of providing sufficient support to high-cost areas so that rates can be affordable?
- Is the fund competitively neutral?
- Is the fund revenue neutral?
- Is the fund explicit?

Options for the Universal Service Fund Executive Summary, cont.

Modeling the Size of the Fund

The fund is sized at three revenue benchmarks (\$30, \$40, and \$50) using both the BCPM and the Hatfield models. The size of the fund produced with these benchmarks will probably not be the amount produced in the final model adopted by the FCC. The illustrations and the range of amounts shown should be used as *indicators* for the size of the fund and the impact on the states and the customers

Descriptions of FCC's Plan and Two Options Modeled:

- **FCC Plan: 25% Interstate/75% State:** The FCC plan for universal service funds only an interstate percentage and the states fund the remainder. The surcharge in **Figure 1A** is for comparison purposes only. Actual collection is through service rates.

The FCC's USF plan assesses the federal contribution to USF (25% of the total requirement identified by the FCC) on interstate retail revenues. The plan also allows for an adjustment to interstate access to reflect the net of the following:

- (1) Increases in interstate access to recover payments made by the LECs into the fund for high-cost areas/low-income households, schools and libraries, and rural health care subsidy requirements; and
 - (2) Decreases in interstate access to reflect support received by the LECs from the fund for their high-cost areas.
- **Option 1: Telephone Numbers:** This option is an overall approach to funding universal service without regard to past interstate/state jurisdictional distinctions. The entire fund is recovered from one mechanism. This option assumes the federal fund will recover 100% of the support calculated at the representative benchmarks. The universal service charge is assessed to customers based upon phone numbers in service (**Figure 1B**).
 - **Option 2: Percentage of Retail Revenues:** This option is an overall approach with the entire fund being recovered using one mechanism. The basis for assessment of the dollars is a uniform percent charge on total retail revenues. Like the previous telephone numbers option, the revenues option assumes the federal fund recovers 100% of the support calculated at the three benchmark levels. The universal service charge is assessed as a percentage of retail revenues on the customer's bill (**Figure 1C**).

For Option 1 and Option 2, to be competitively neutral, the surcharges should be applied entirely to the end user and must be applied by all companies to their customers.

Modeling the Impact on Individual States

The paper that accompanies this executive summary contains a series of charts that look at the impact of the FCC's plan and for the two options for individual states for the six fund sizes modeled. Individual states can see on a per line per month or on a per telephone number per month basis whether the state is a net payer or receiver from the fund.

A state may need more or less than the amounts modeled in the paper. This paper does not recommend any method of reduction in prices for services.

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Figure 1: Comparison of the FCC's Plan with Two Options

A. FCC Plan: 25% Interstate/75% State — Surcharge on Interstate Retail Revenues per Access Line per Month (for Comparison Purposes Only)

Amount of Benchmark (in dollars)	FCC Plan Surcharge* on Interstate Retail Revenues (%)			Interstate Fund (in millions)			Remaining State Responsibility (in millions)		
	\$30	\$40	\$50	\$30	\$40	\$50	\$30	\$40	\$50
BCPM	3.2%	2.0%	1.3%	\$2,100 m	\$1,323 m	\$865 m	\$6,299 m	\$3,968 m	\$2,595 m
Hatfield	0.8%	0.4%	0.2%	\$510 m	\$244 m	\$124 m	\$1,529 m	\$731 m	\$373 m

*This surcharge is for comparison purposes only. Actual collection is through service rates. Surcharge is based on 25% of 1995 interstate retail revenues.

B. Option 1: Telephone Numbers — Surcharge per Telephone Number per Month

Amount of Benchmark (in dollars)	Option 1: Nationwide Surcharge* per Telephone Number per Month (in dollars)			Total Fund (in millions)		
	\$30	\$40	\$50	\$30	\$40	\$50
BCPM	\$3.34	\$2.10	\$1.38	\$8,399 m	\$5,291 m	\$3,459 m
Hatfield	\$0.81	\$0.39	\$0.20	\$2,039 m	\$975 m	\$497 m

*This surcharge would apply to each telephone number per month. To be competitively neutral, this surcharge should be applied entirely to the end user and must be applied by all companies to their customers.

C. Option 2: Percentage of Retail Revenues — Surcharge as Percentage of Total Retail Revenues per Access Line per Month

Amount of Benchmark (in dollars)	Option 2: Nationwide Surcharge* on Percentage of Retail Revenues per Access Line per Month (%)			Total Fund (in millions)		
	\$30	\$40	\$50	\$30	\$40	\$50
BCPM	5.03%	3.17%	2.07%	\$8,399 m	\$5,291 m	\$3,459 m
Hatfield	1.22%	0.58%	0.30%	\$2,039 m	\$975 m	\$497 m

*This surcharge is based on 1995 total (interstate and state) retail revenues. To be competitively neutral, this surcharge should be applied entirely to the end user and must be applied by all companies to their customers.

Project Information

List of Participants in the Telecommunications Industries Analysis Project

October 1997

State Regulators

NARUC Representatives from:
California Public Utilities Commission
Florida Public Service Commission
Illinois Commerce Commission
Iowa Utilities Board
Massachusetts Department of Public
Utilities

Companies and Governments

AT&T
Bell Atlantic
BellSouth
Corning
France
France Telecom
GTE
Kalona Cooperative Telephone
MCI
Nortel
NTT America
SBC Communications
Sprint
Sprint Local Telecom Division
360° Communications
U S WEST

Sponsors:

Corporation for Public Broadcasting

Assisting with *public* data:

Bellcore
Federal Communications Commission
National Exchange Carrier Association
National Telecommunications and Information Administration

Project Information, cont.

Background on the Telecommunications Industries Analysis Project

The Telecommunications Industries Analysis Project (TIAP), a six-year-old research consortium, conducts and reports impartial research in the areas where network planning, business financials, and public policy (regulation and legislation) intersect. The participants actively work together to develop new options for telecommunications policies to meet the needs of consumers, governments, and companies in a changing, competitive environment. Participants include regulators, domestic and foreign telecommunications companies, materials and equipment manufacturers, and other communications-based organizations.

The purpose of the Project is to produce research and analysis that will assist policy makers in making informed decisions.

TIAP incorporates the following features:

- **Neutral setting**
The Project provides a neutral setting, free of partiality, thereby ensuring objective and independent research.
- **Multiple viewpoints**
Participants play an active role in the research and analysis, represent their own interests, and understand and assist in developing others' perspectives.
- **Analysis and results of alternatives**
The Project provides research data, tools, and models for critical decision making.
- **Public distribution of research**
Data used by this Project are publicly available. Research products become public domain information.